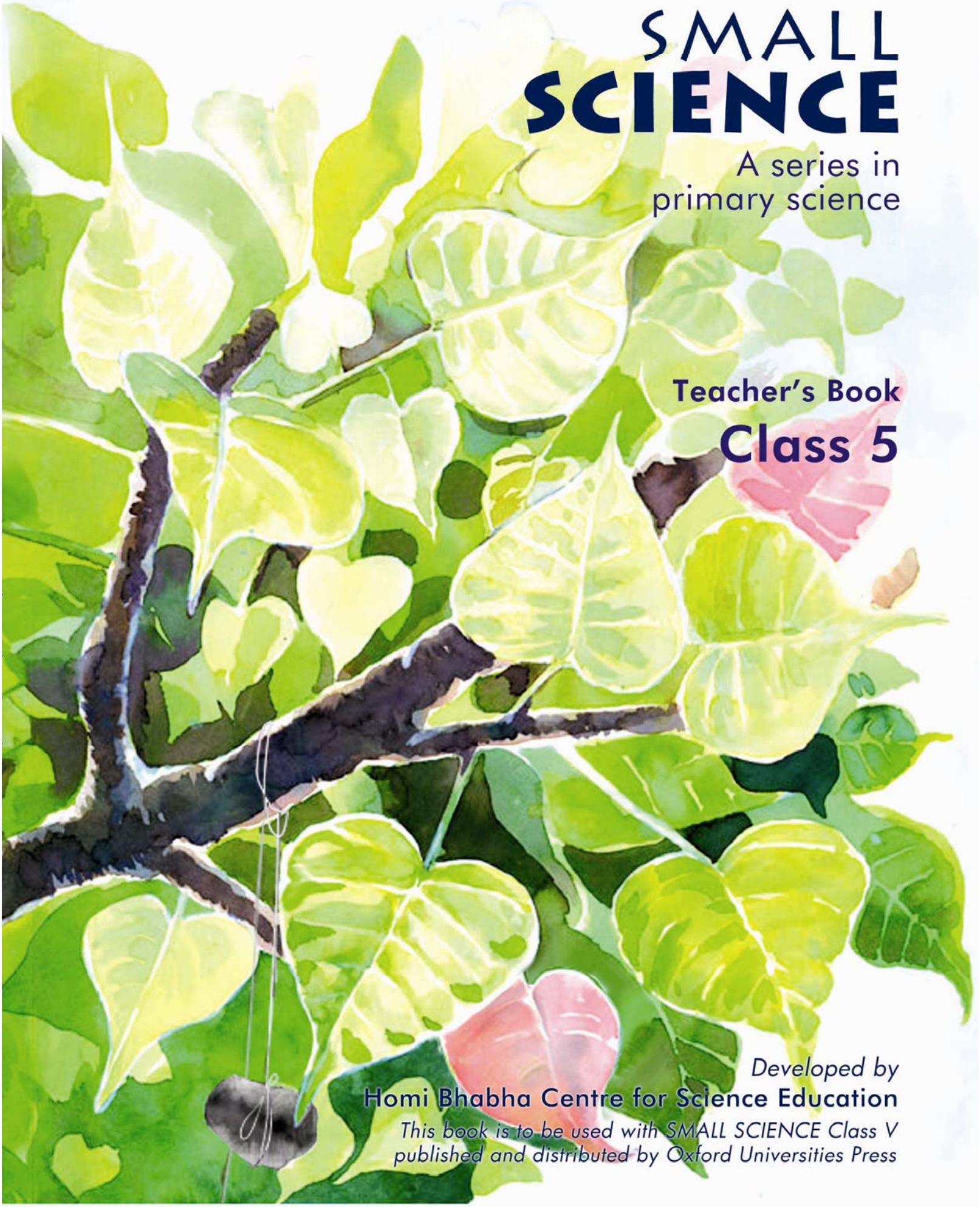

SMALL SCIENCE

A series in primary science

Teacher's Book

Class 5

Developed by

Homi Bhabha Centre for Science Education

This book is to be used with SMALL SCIENCE Class V published and distributed by Oxford Universities Press

Homi Bhabha Curriculum for Primary Science

SMALL SCIENCE

Teacher's Book
Class 5

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Small Science
Teacher's Book
Class 5

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GENERAL PREFACE

Not a day passes in our country when somebody somewhere has not criticized our system of education, particularly our school education. A great many ills and inadequacies of the system probably flow from extraneous causes and need socio-political initiatives that go beyond mere reforms in school curriculum. But some problems do arise directly from the curriculum - text books, teaching and evaluation practices. There is then a need to keep these problems in view and continually try to devise new curricula to overcome them.

Efforts in curricular reforms and innovations are not new to our country. Nearly every decade or so, there have been initiatives at the Central and State levels to effect changes in curricula. Several independent school networks and voluntary groups have brought out their own textbooks and related materials. There is no doubt that significant progress has been made by the country in increasingly better conceptualization of the school curriculum at primary, middle and secondary levels. The paradigms of school curriculum in India have steadily evolved and become more relevant and modern. Unfortunately, the over-all deterioration of the system due to extraneous factors has tended to obscure these gains. Also, and most important for our purpose here, there is a large gap between the generally agreed objectives of the curriculum and their actual translation into textbooks and teaching practices.

Homi Bhabha Curriculum is basically an attempt to close this gap as much as possible. It is not conceived to be a revolutionary curriculum. The broad aims of the curriculum are much the same as those articulated in countless reports and articles of different education departments and agencies. The idea is not to produce a fanciful, 'museum-piece' curriculum that nobody would adopt, but to attempt to discover a sound and wholesome curriculum that is practical to implement in our school system. 'Practical' is, however, not to be regarded as a euphemism for the status quo. As the users will find out, the alternative textbooks of the Homi Bhabha Curriculum are full of radical unconventional ideas that we believe are both urgent, necessary and, given enough efforts, feasible. But rather than describe here what we believe to be these innovative aspects, we leave the users, students and teachers, to find and experience them. In the simplest and most favourable situations, devising a curriculum and translating it into books, laboratories and teacher manuals is a daunting task. In the complex parameters and constraints that govern our country's educational system, the task is formidable. Only time will tell if and to what extent the Homi Bhabha Curriculum is an effort in the right direction.

Arvind Kumar

PREFACE TO SMALL SCIENCE CLASS 5

The class V book of the Homi Bhabha Curriculum, like others in this series, attempts to encourage the natural curiosity and powers of observation which children have. It uses these qualities to help children learn about the world around them.

The emphasis in the books is on the process of science - observing, asking questions, trying to find the answers through further observations and experiments - rather than on information that children are expected to memorize without any real understanding. Needless to add, it would be difficult to use this book meaningfully without doing the activities.

The activities have been designed such that easily available materials can be used; sometimes low cost materials may have to be purchased, but this small investment is unavoidable, and certainly worthwhile if it makes learning fun and easy.

The material in this book has been tested and incorporated in the book when it was found to be successful in our classroom. We would like to know how you found it in yours. Please send us your feedback and suggestions by e-mail, or use the form in the Teacher's book.

I hope the teachers and children have as much fun with this book as I did in developing it.

Jyotsna Vijapurkar

Teacher Support: smallscisupport@hbcse.tifr.res.in

ACKNOWLEDGEMENTS

My sincere thanks to Arvind Kumar for his active interest in this work, for constant encouragement and for making time for discussions despite his busy schedule.

Jayashree Ramadas pointed the way in the beginning ,and the pitfalls along the way.

Madhugandha Damle contributed much more than the illustrations; she gave many inputs all through the text. I am very fortunate indeed to have had the pleasure of collaborating with her.

I would have been grateful to the biology folks - Shilpa Pathak, Rekha Vartak, Anupama Ronad, Ritesh Khunyakari, Abhijeet Bardapurkar- had they just tolerated my many questions; they welcomed them! Sandhya Thulasidas shared her naturalist's knowledge with me.

G. Nagarjuna and Chitra Natarajan gave valuable feedback. I often went straight to them after the classroom trials, with much to share. Thanks for always keeping the door open.

Many thanks to V. G. Gambhir, to whom I turned for answers unlikely to be found in any book.

Manoj Nair and R. S. Patwardhan made innumerable troubleshooting trips to the Cognitive Lab where the layout work was done. We could not have proceeded without their help.

Swati Mehrotra was a great sounding board, and gave helpful comments.

Suchitra Varde in the initial stages, then Gouri Patil and Fouzia Dohadwalla carried out trials of the activities,, maintained logs, and aided in the research. Archana Shinde and Aisha Kawalkar gave valuable help during the final stages of production.

I thank Mariona Gomes and her colleagues of the NGO 'PATH', Madhavan Nair and his colleagues at the National Institute of Nutrition, Hyderabad for their help. Madhav Gadgil gave very helpful and detailed comments and suggestions on the first two chapters.

The principals and teachers of Atomic Energy Central Schools and Childrens Aid Society school accomodated us in their schedules, making the classroom trials of the material possible. The children of these schools were enthusiastic participants, and taught me much.

Photographs from Space are by NASA and ISRO. A. Ghaisas provided photographs of the globe.

I thank all my other colleagues at HBCSE whom I consulted from time to time. I am grateful for the computer and administrative support at HBCSE.

Thanks to many friends, and friends of friends - who contributed in many ways.

My mother, Sharada, is one of the best teachers I have ever had. She inculcated in me a love of learning. I dedicate this effort to her.

Jyotsna Vijapurkar

Dear Teachers,

With every batch of students in our research and classroom trials, we found that initially only a handful of students, often just one or two, would raise their hands in response to questions. No other child would actively participate in the class. Perhaps this practice is what they carried over from their regular classes. With time, however, we saw to it that all children got involved. The initiative to establish this atmosphere had to come from us, the teachers. Sometimes a bright child would give a very good answer right at the beginning, with all the 'ifs' and 'buts' covered; had we acknowledged that right away, the rest of the class would not have been motivated to think about the question. So my response would be - 'that is what s/he thinks, what do ***you*** think?' At the end I would say something in appreciation of the child who gave the good answer, or else s/he may feel ignored.

I think many of us hesitate to speak in large groups for fear of ridicule. I made a rule in my class that no one should laugh at any answer or question. Of course this is hard to enforce, given how spontaneous laughter is. But again, finding something good to say about the child's statement quickly corrected the situation. If nothing else - 'I am so glad you pointed that out' or 'good point!' will do the trick. It serves to bring children out of their diffidence.

Controversial questions, which may not have unique clear cut answers (for example, the position of the mango tree in the Venn diagram in chapter 1), are also very useful in encouraging shy children to contribute to the class discussion. Incidentally, addressing such questions is very much a part of doing science!

Lastly, bear in mind that it is in the very nature of science and technology that they are constantly evolving. The information in this book is as up to date as possible - the status of Pluto made it necessary to change the sections on the Solar system in chapter 7, just a day or two before the book went to the printers! In the same way, the materials used in making different parts of a bicycle (chapter 10) will change as newer materials and technology become available. But then this book is not about information, but about the way we go about finding answers. Why Pluto is no longer considered a planet is more interesting and important than the number of planets in our solar system. However, do keep in mind that with time some information will need to be revised.

Jyotsna Vijapurkar

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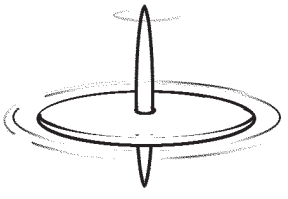

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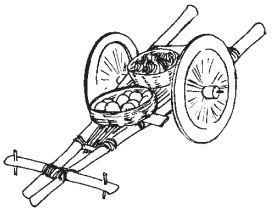

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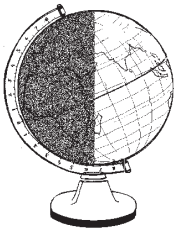

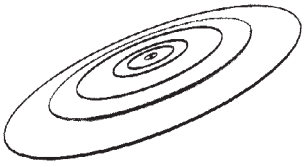

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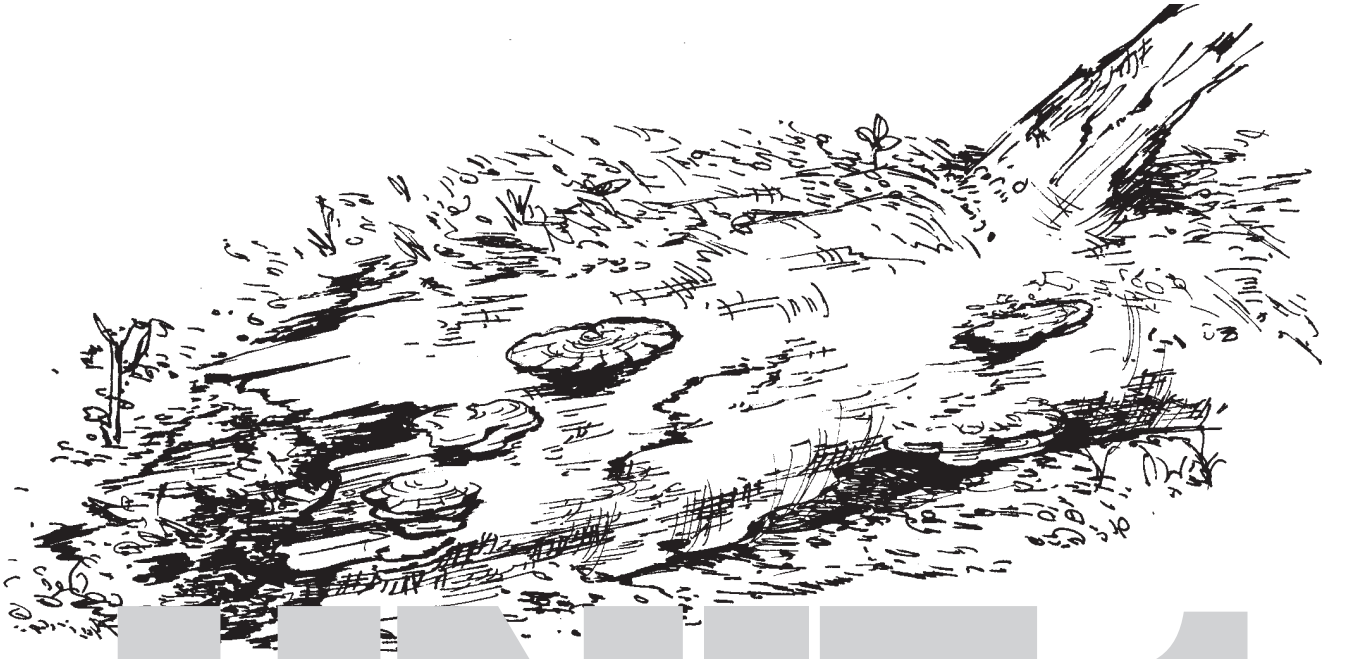
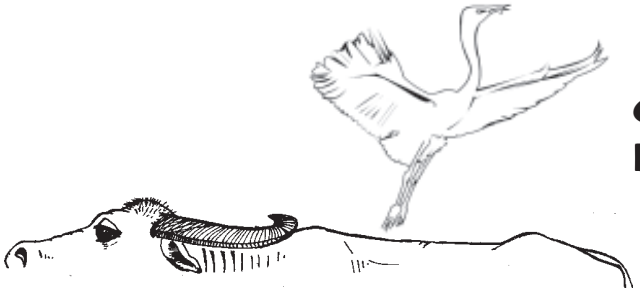


UNIT 1

THE WEB OF LIFE

Chapter 1 Living together

Chapter 2 Soil



CHAPTER 1
LIVING TOGETHER

Why I developed this chapter

Children tend to be very anthropocentric - they look at every plant and animal in terms of its uses to humans. In this chapter I was trying to get them to look at how animals and plants are dependent on others around them. No matter which tree or animal I picked as an example, they came up with some use to us. I decided to ask them to think of all that an ant takes from and gives to its environment; I was sure they could not come up with any use to humans. To my surprise and great amusement, they came up with two "it teaches us the value of hard work" and "it helps us in learning - 'A' for ant"!

Main objectives

To get children to

1. Appreciate the variety of life around them.

2. Understand that each living thing depends on others, to see it as part of a complex web, not simply as something that is ‘useful to humans’ or ‘harmful to humans’.

3. Observe flowers and their parts, and to learn about pollination.

A green branch
A spider’s web
A patient spider in the web

A hungry aphid sucking leaves
A busy bulbul in the bush
With twigs and cobwebs for its nest

Living things everywhere, need others too
For food, for homes, for so much more...

> Students were unfamiliar with the words aphid and twigs, but did understand the overall content of the poem. Aphids are small insects which suck the sap from stems and leaves; rose plants often have aphids as pests.

Animals and their food

Preparation:

> Allot about 1 hour for this activity - a double period is preferable, so they can make the list and the drawings while it is still fresh in their minds. Before going to the plot, remind them to carry the workbook and a pencil, and remind them that they have to be quiet (or they will scare away birds and other animals).

1. Find a plot of land in or near your school which has some grass, other plants, one or more trees and which has a lot of insects and other living things. You are likely to find more kinds of living things if your plot has a pond, *nullah* or some other water body in it. Mark the boundary of your plot with stones, twigs and sticks etc.

> In the next section, they actually make a measurement of the plot boundaries, so it would help to leave the markers there.

a. On page 3 of your WorkBook, make a list of all living things, parts of living things and homes of animals you find there. Look for birds, birds' nests, different kinds of worms, ants, ants' nests, spiders, spider webs and anything that is caught in them, etc.

Be sure to look inside flowers, under leaves and in cracks in the bark.

If you find any living thing whose name you do not know, write a short description of it.
How big (or small) was it? Draw it.

Suggestion:

> Big or small is relative, so comparison with a common animal helps. For example, As big as, or slightly bigger/smaller than a fly (or lizard or crow or ....whatever) The sizes of birds in Salim Ali's field guide, for example, are given in comparison to common ones like mynah, bulbul, sparrow, crow, pigeon.

Observe carefully where you saw the animals - both large animals and small ones like tiny insects and worms.
Make a guess - what do they eat? In the list, circle the animals, as shown.

Field experience:

> The food of some commonly found animals is given in Appendix 1. In our trial, we selected a somewhat wild part of a garden, and found a rich variety of living things, including bracket fungi growing on the bark of a tree and several kinds of ants.

Think! Think!
Where do plants get their food from?

> Plants make their 'food' in their leaves in the presence of sunlight, using carbon dioxide in the air, and water. The statement 'plants make their own food' often causes confusion - humans 'make' their own food too as in cooking. The difference of course is that plants make it from inorganic matter (i.e. from non living things) - such as carbon dioxide from the air, water and minerals. They convert this into glucose, then starch (complex carbohydrate). This is then used for functions such as growth and transport of material through the plant. Herbivores and omnivores get energy mostly from carbohydrates which they get by eating plants. Carnivores get energy mostly from protein and fats which they get by eating animals.
>
> If we simply agree to call things that are taken in as food, then plant food would be carbon dioxide, water, minerals; animal food would be parts of plants or of other animals.

b. The plot where you found these living things.

On page 5 of your WorkBook, describe the shape of your plot. How big or small was it? Draw it. Measure the lengths of the boundaries. Draw a map of your plot.
Mark the lengths of the boundaries on it. Draw the map to scale - decide how many centimetres on the map show one metre on the ground. In the map, show where the trees and bushes were and write their names. Write the names of the animals where you found them.

Classroom/Field experience:

> We tested this activity with a very difficult shape in our garden - with curved boundaries. Yet the students did a very good job - they said, for example, one side was shaped like a 'C' etc.

c. Here is a list of some living things.

ant-lion	human being	elephant	wall spider
frog	oyster	fish	rabbit
bee	flea	sparrow	dung beetle
earthworm	root bacteria	rat	crab
red ant	bat	monkey	water hyacinth

Where is each one found most often - under the ground…on the ground, or in some other place?
Mark the correct column with a (✓) for each one on page 7 of your WorkBook.
If you mark the column 'in some other place', write in which place you find that living thing.
Are there living things which have a mark in more than one column? Now write all the names in the correct places in the diagram.

Think! Think!

Where would you put a mango tree in this diagram?

> Different parts of the mango tree span all these habitats - an interesting question. I would put it at the intersection of all the sets. Raising such debatable points makes the class lively, making even the usually quiet and shy children participate.

Living things depend on each other.

2. Every animal depends on other living things for its food.

> A few species of bacteria called archaebacteria get their nutrition directly from inorganic sources; all other living things depend on others in a very complex web.

a. On page 9 of your WorkBook, select an animal from your list and write some things it eats:
Animal: __
Eats: __, __, __, __, __ etc.
Now all the animals which eat the animal you selected.
It is eaten by:__,__,__,

b. Food chain:
Draw arrows between the following living things, showing which eats the other. The arrow should always point from the plant or animal that is eaten (food) to the animal that eats it.

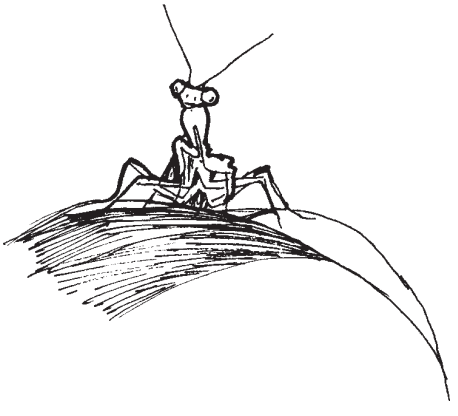
Here are two examples.

A cow eats grass

grass ⟶ cow

An owl eats a mouse, a mouse eats rice

owl ⟵ mouse ⟵ rice



mynah	earthworm	decaying leaves
koel	caterpillar	fresh leaves
wheat	mouse	snake
snake	frog	fly
mosquito	frog	stork
seagull	*bombil* fish	prawns

c. Make a web:
On page 10 of your WorkBook is a part of a web showing some living things, showing who eats whom. Add more living things to this to make a larger web by asking questions like these:

Who else eats a grasshopper?
What else does a frog eat?

Now....
weave (!) a story about five of the living things in your web.
Imagine that they can talk to each other.

3. Animals depend on other animals and plants for many things, not just food.

> For example, one plant may provide support for climbers, tree trunks can be a place for mushrooms to grow, or for insects to live in cracks; material for nests such as leaves, twigs, cobwebs, feathers come from other living things, trees provide the shade some plants or animals may need, animals help move seeds from one place to another, some animals are hosts for parasites such as ticks and fleas. This can grow into a very long list indeed!

a. Pick one living thing from your list, and write down some other living things it needs.
What does it need them for? Think of where it lives, whether it builds its home, and with what.

> I drew a tree on the blackboard and did this activity involving the whole class. This is a good exercise to do to get many ideas from children and start them thinking about interdependences.

b. Look at the picture of a banyan tree on page 12 of your WorkBook. It shows

i) some things the tree uses from its surroundings and the living things in the surroundings.

ii) some things that the tree gives to its surroundings and the living things in the surroundings.

Add as many things as you can to this picture. Remember - the arrows have to point in the correct direction!
Now in your WorkBook draw a similar picture for an ant.

> It was at first difficult to get children to think of the role of any plant or animal in its environment; they were accustomed to thinking of them only as useful or harmful to humans. That is why I asked them to do this exercise with an ant, and I still got pretty imaginative answers (see the introduction to this chapter).

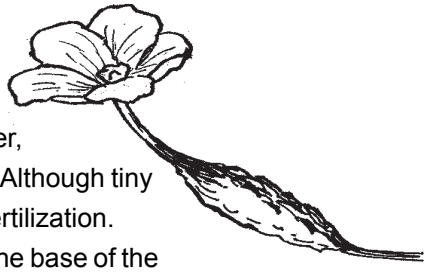
Animals need plants. Do plants need animals?

4. Pollination

Classroom experience:

> To introduce this topic I took tender *turai* which still had parts of the flowers attached [Many thanks to Mrs. Sakhubai Kadam, a vegetable vendor, who gladly brought such vegetables from the fields on her way every time I requested her].

a. Refer to the text book for the picture story.



> Fertilization is a must for ovaries to develop into fruits; however, there are some exceptions to this - the banana, for example. Although tiny black 'seeds' can be seen inside, the fruit develops without fertilization. The plant reproduces without seeds - new shoots appear at the base of the old plant. In some cases, when seedless fruits are desired, ovaries can be induced to develop into fruit without fertilization by spraying flowers with a hormone. In one variety of grape - Thompson seedless grape - fertilization does take place, but the ovules fail to develop. See appendix 2 for more on some 'fruits'

The pollen grains are very small. You need a microscope to see each pollen grain. The yellow powder that rubs off on your hand has hundreds or thousands of grains.
This is how *karela* pollen grains look under a microscope, if magnified a hundred times. (See the text book.)

Flowers of many plants, like the hibiscus and gulmohar, have both the male parts (stamen, anthers, pollen) and the female parts (stigma, style, ovary) in the same flower.

On the next page are a few more flowers showing the male and female parts.
The flowers of most plants, even those with both male and female parts in the same flower, need insects or other animals for pollination.

Note: If you pick up fully opened gulmohar flowers which have fallen from the tree, the anthers and stigma may have fallen off.

b. On pages 13 and 14 of your WorkBook drawings of oxalis, pea, mirabilis (Gulab bas), talinum (Ceylon basali) flowers are shown.
In these flowers, can the pollen reach the stigma without the help of insects or other animals?

> In oxalis and pea, yes (the oxalis stigma is long, as shown in the drawing, and pollen from the anthers touching it anywhere along its length can fertilize it); in mirabilis and talinum, the pollen cannot reach the stigma unless an insect or other agent moves it. Interestingly, most flowers are cross-pollinated, meaning that fertilization takes place when pollen from one flower falls on the stigma of another flower (of the same kind!). In many flowers, the male and female parts mature at different times, so self pollination cannot take place...

c. Find any flower that has only a few petals and draw it; show where the anthers, ovary and stigma are. Does your flower have both the male and the female parts?

> Some plants, like *karela*, bear both male and female flowers on the same plant; in others, such as papaya, different trees bear male and female flowers.

d. Which animals, other than bees, pollinate flowers?

> This is a good exercise to encourage children to be observant: Many birds suck nectar, such as sun birds and mynas; wasps and ants can be found in many flowers; bumble bees (*bhaonra*), some bats and butterflies, visit flowers - all these transfer pollen from one flower to another.

5. Dispersal of seeds

Slowly the fruit ripens and the seeds are ready to grow into plants. How do they go from the plant to some other place in the soil? Make a guess.

a. You learned last year how some seeds can be carried by the wind or water. Think of some seeds which cannot be carried by the wind or water. How can they travel from the plant to other places where they can grow?

b. Many animals eat fruits and their faeces contain the undigested seeds. The seeds grow where the faeces are dropped.

c. Some seeds stick in different ways to the hair or skin of animals. Walk through an area where grass grows wild (not lawns).

Check your clothes and legs (and *chappals* or shoes and socks) for seeds that got stuck there. How did they cling to you?
Pick out these seeds and fruits. Draw them. Show which part of the seed or fruit attached itself to you or your clothes.

Take care!

Be careful not to step on thorns; be alert for snakes, ants etc. which may bite you.
Don't walk into thorny plants.

Think! Think!

Plants and animals die, parts of plants like leaves and branches fall off.
What happens to all these dead plants?

> They decay, until only the minerals of which they are formed remain; these are recycled - they are taken up by plants.

Know these words

pollination, pollen, stigma, anther, ovary, style, ovule, dispersal

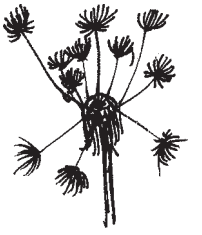
EXERCISES

Interesting questions

1. In the following, fill in the blanks. One is filled out for you.

More snakes → _____ → more grain.
More _____ → fewer rats → less plague.
More _____ → fewer mosquito larvae → less malaria.
More snakes → fewer frogs → more _____ .
More bulbuls → fewer _____ → more grain.
Less bees → less pollination → fewer _____ .
More people → more _____ → less trees.
Less trees → fewer bulbuls → more _____ → less _____ .
Add similar lines of your own.

2. Suppose two flowers are very far apart. How can pollen from one flower reach the stigma of the other? Can this happen without the help of insects? How?



Wind carries pollen - many grasses, including the plants of cereals, are wind pollinated.

3. What would happen to leaves if snails and earthworms did not eat them?

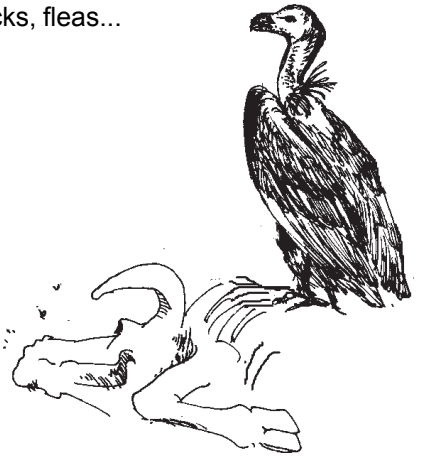
4. Name some animals which

a) drink the blood of other animals
mosquitoes, leeches, vampire bats, bed bugs, lice, ticks, fleas...

b) eat grain
sparrows, humans, rodents...

c) eat dead animals
vultures, hyenas, ants, flies...

d) eat wood
termites, some kinds of beetles



e) eat insects

frogs, lizards, bee-eater, drongo...

f) eat decaying leaves

snails, earthworms , crabs...

5. Now what would happen if you used insecticides to kill off all insects? If you burned all dead leaves?

6. What did people eat before they started farming?

Animal meat, fruits

7. Do all fruits grow from flowers?

Yes

8. Do all flowers grow into fruit?

> Not necessarily - the male flowers, for example, won't; also the unfertilised female flowers, in most species, won't.

9. What would happen if the pollen from the *karela* falls on the stigma of a papaya flower?

Nothing.

10. Which of these vegetables are fruits, and which ones are not? How do you know?
Bhindi, tomato, potato, brinjal, ginger, beet-root, chilli, *palak*, green peas, radish

> *Bhindi*, tomato, brinjal, chilli, green peas are fruits - they have seeds in them. The meaning of the scientific term fruit is different from the one in everyday usage, in which a fruit is something that is mostly sweet, and can be eaten without cooking. The word fruit, as the scientific term, means that part of the plant which is the result of fertilization, and which bears seeds. There are exceptions, as mentioned earlier, in which fruits may not bear seeds.

Observe and draw

Flowers of as many fruits as you can, like those of *ber*, papaya, mango, *neem*, tamarind, drumstick, tomato, *bhindi.*

Act it out

Pretend to be any animal of your choice. Describe it, then act like it.
a) How does this animal move?
b) Does it make any sound you can hear?
c) Does it build its home? Where, and with what?

d) How does it eat?
e) Does it hunt other animals? How?
f) Is it hunted by any animal? How does it try to escape?

\Ask and find out

Are there places near your school or house that had less animals and plants than they do now? How did this happen?
Are there places that had **more** animals and plants than they do now? How did this happen?

Play with words

Write a poem on your favourite living thing.

Show and tell

Bring to class and show any baby fruit with part of the flower still attached.
You may find such tender vegetables in the market (or garden or field).

Figure it out

1. On page 19 of your WorkBook is a map of Apu's plot. Study the map and answer the questions.

a) Give your answers in metres for the questions below:
How far is the plant with big leaves from the tamarind tree? You can measure from the base of the tree to the base of the plant.
How far is the lizard from the ant?

b) There is a banyan tree 30 m from the shoe flower plant.
Can you show this on the map? If not, what can you change about the map so that you can show the tree on it?
2. A rat's tale (Page 20 of your WorkBook)
Read the story first, then answer the questions.

Play this game

Ask your friend to choose one of the animals from this list:
Owl, eagle, crow, sparrow, cat, squirrel, mosquito, fly, spider, cobra, lizard, butterfly, frog, fish, cow, horse, sunbird, earthworm, moth.

Your friend will not tell you his or her choice right now.
Ask questions which have 'yes' or 'no' answers to find out what your friend chose.
Q1._____
Ans _____ (yes or no)
So the animal can be one of these -_____
Keep asking questions till you guess what your friend chose. Each time, write down the question, the

answer and the list of animals.

Ask a question

Ask a question about any living thing around you. Think of how you would find the answer.

Classroom discussion:

From your web, remove any two living things. Will the rest of the living things get affected? Which ones? How?

DID YOU KNOW?

1. A kind of bird called the dodo used to live on the island of Mauritius. This bird could not fly. Dodos were easily hunted by sailors, and dodos' eggs were eaten by rats and dogs which the sailors brought with them.

In 1681, the last dodo was killed; i.e. the dodo became extinct. The dodo ate the fruit of a tree called Calvaria (also called tambalacoque). The seeds of the tree could sprout and grow into trees only after they passed through the dodo's digestive system.

So after the dodo became extinct, no new Calvaria trees could grow on the island.

There are only 13 Calvaria trees on the island now, and all are more than 300 years old. Scientists are now trying to make the seeds sprout by making another bird, the turkey, eat it. Some seeds have sprouted, but the plants are still too young to grow fruits of their own.

2. Some plants, like the sundew and the venus fly trap shown here, trap and digest insects.

The sundew flowers are very sticky. When insects land on them, they get stuck and cannot fly away.

3. The cheetah became extinct in India about 50 years ago, because people hunted and killed all the cheetahs we had.

4. There are about 9000 kinds of birds in the world. 13% of them (about 1200) are found in India though it occupies less than 2% of the land in the world! See how many different kinds of birds you can see in one morning in the area where you live.

Children's work - an example

PLAY THIS GAME.

Ask your friend to choose one of the animals from this list..

Owl, eagle, crow, sparrow, cat, squirrel, mosquito, fly, spider, cobra, lizard, butterfly, frog, fish, cow, horse, sunbird, earthworm, moth.

Your friend will not tell you her/ his choice **yet** ....
Ask questions which have 'yes' or 'no' answers to find out what your friend chose.

Q1. Is it a bird ?

Ans No (Yes or No) Cat, Squirrel, Spider, cobra, lizard, frog, horse, Cow, Moth,
So the animal can be one of these: -
fish, butterfly, earthworm, mosquito.

Q2. Does it lay eggs ?

Ans No (Yes or No)
So the animal can be one of these: -
Cat, Squirrel, horse, Cow,

Keep asking questions till you guess what your friend chose.
Write down the questions, the answers, and the animals.

Q3. Does it eat flesh ?

No (Yes or No)
so the animal can be one of these :-
Squirrel, horse, Cow.

Q4. Does it climb tree ?

Yes (Yes or No)

So the animals can be one of these :-

Squirrel

Ans = Squirrel